USGS
science for a changing world

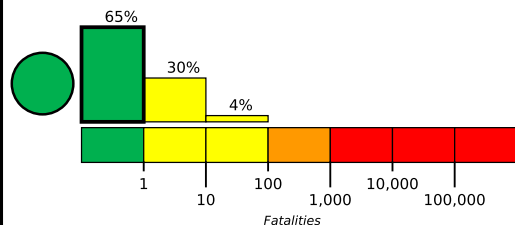Earthquake Shaking — Green Alert

GSN · USAID · ANSS

PAGER
Version 6

M 6.3, 27 km SSE of Saiki, Japan

Origin Time: 2022-01-21 16:08:37 UTC (Sat 01:08:37 local)
Location: 32.7282° N 132.0368° E Depth: 39.0 km
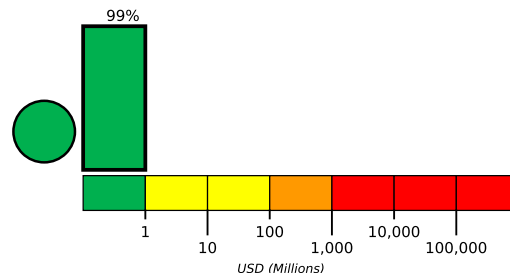**FOR TSUNAMI INFORMATION, SEE: tsunami.gov**

Created: 3 weeks, 1 day after earthquake

Estimated Fatalities

65%
30%
4%

1   10   100   1,000   10,000   100,000
Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.
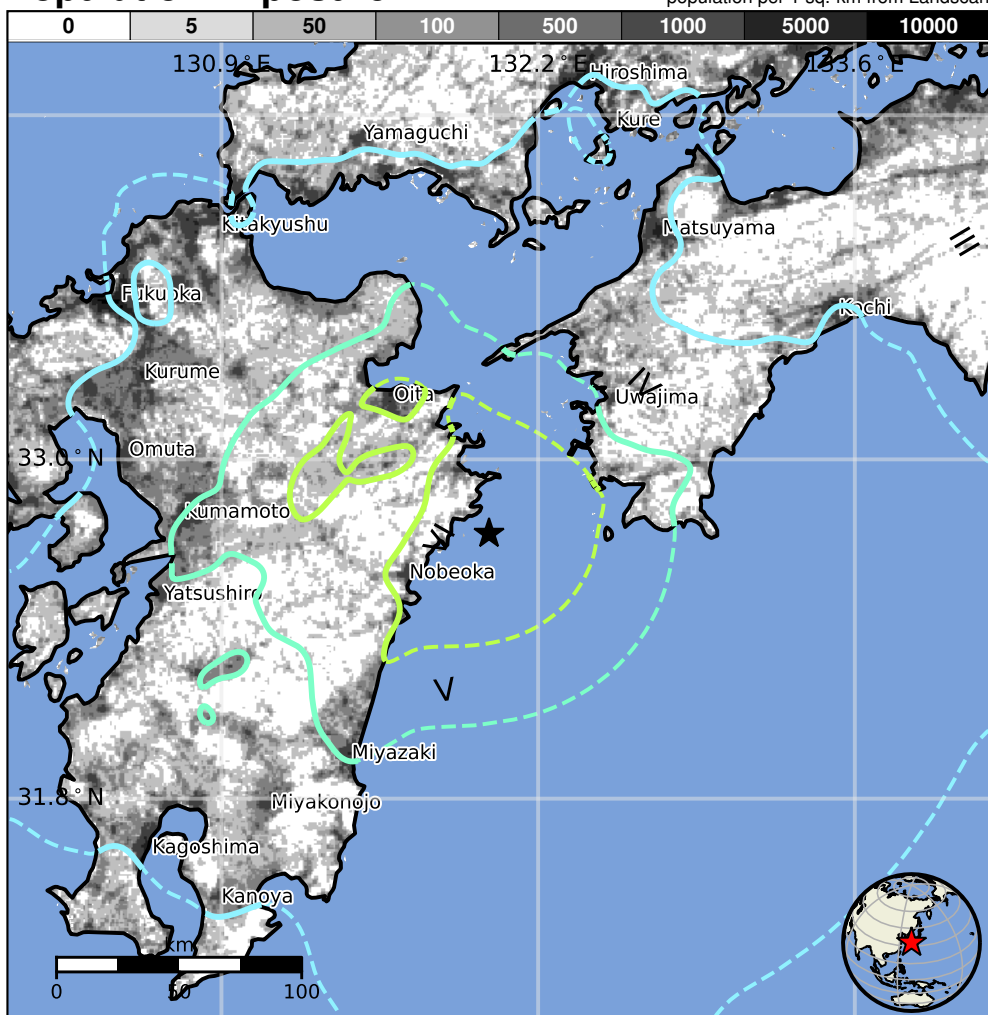
Estimated Economic Losses

99%

1   10   100   1,000   10,000   100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	4,423k*	11,581k	1,872k	925k	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

| 0 | 5 | 50 | 100 | 500 | 1000 | 5000 | 10000 |

Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are heavy wood frame and reinforced/confined masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1987-03-18	79	6.6	VII(593k)	1
2001-03-24	159	6.8	VIII(5k)	2
1995-01-16	343	6.9	IX(1,740k)	6k

Recent earthquakes in this area have caused secondary hazards such as landslides, fires and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
VI	**Oita**	**449k**
VI	Saiki	49k
VI	**Nobeoka**	**122k**
VI	Tsurusaki	77k
VI	Sukumo	26k
VI	Usuki	35k
IV	**Kumamoto**	**680k**
IV	**Kagoshima**	**555k**
IV	**Matsuyama**	**443k**
IV	**Fukuoka**	**1,392k**
IV	**Hiroshima**	**1,144k**

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us7000gdwz#pager

Event ID: us7000gdwz